

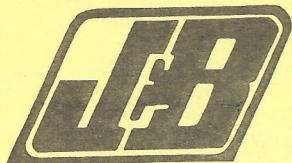
\$1.50

**ENERGY = MC<sup>2</sup>... THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE**

ISSN: 0740-2759

**NOVEMBER 1985**





# COMPUTER PRODUCT CENTER

220 M.A.C. Ave.  
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East Lansing, MI 48823  
(517) 332-8082



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Datalife 5.25"	1S /2D	\$19.00
	1S/2D	\$23.00
Maxell 5.25"	IBM-AT	\$52.00

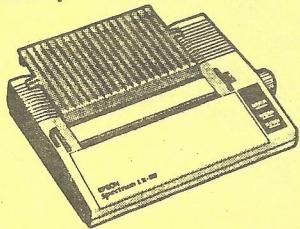


\$14.95

List Price:  
\$26.00

## Epson Spectrum LX-80 RATED "GP" S

Great performance. Great price.



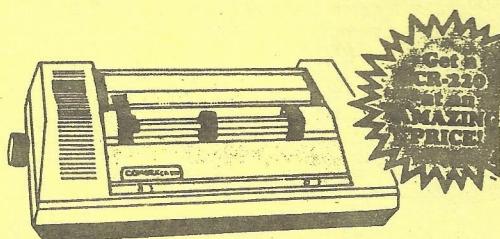
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- SPEED** ■ 100 characters per second business quality draft mode.
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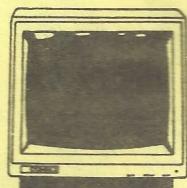


## COMREX CR-220 Printer

- 50 CPS • Tractor Feed (Adjustable)
- Commodore Ready

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List Price \$159.00

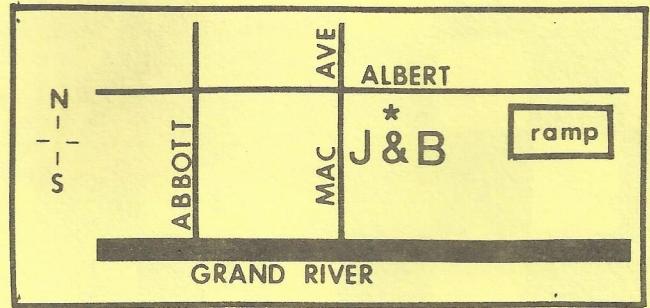


## COMREX CR-5650 Green Monitor

- 12" Hi Res
- Includes Cable
- 2 yr. Warranty
- 3 years on CRT

**ONLY \$49<sup>00</sup>**

List Price: \$99.00



OCTOBER 1985  
 SU MO TU WE TH FR SA  
 1 2 3 4 5  
 6 7 8 9 10 11 12  
 13 14 15 16 17 18 19  
 20 21 22 23 24 25 26  
 27 28 29 30 31

CONSORTIUM CALENDAR

NOVEMBER 1985

DECEMBER 1985  
 SU MO TU WE TH FR SA  
 1 2 3 4 5 6 7  
 8 9 10 11 12 13 14  
 15 16 17 18 19 20 21  
 22 23 24 25 26 27 28  
 29 30 31

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					CMARC	CCUG
3 LAMALUG	4 TI USERS GROUP	5 LACC	6 M3G EXEC	7	8 DRUG	9
10 Veterans Day	11 HEATH SIG	12 IACM	13	14 ENERGY DEADLINE	15 CHAOS	16 APPLE LUG
17 CMTUG	18 CP/M SIG	19 IM3G	20	21	22	23
24 UPCO (IBM PC)	25 LPCO (IBM PC)	26	27 Thanksgiving	28	29	30

LANSING AREA COMPUTER CLUBS

ACM (Association for Computing Machinery)

Meets: Usually 2nd Wednesday, 6:00 pm (dinner);  
 7:30 pm (meeting); Quality Inn, Lansing  
 Contact: Lew Crippen 377-6636 (days) 371-3179 (evenings)  
 Mary Dike or Walt Davis 377-6636 (days)

Apple LUG (Lansing Users Group) (MC2)

Meets: Third Saturday, 9:30 A.M.  
 102 South Kedzie Hall, MSU, East Lansing  
 Contact: P.O. Box 27144, Lansing, MI 48902  
 Gary G. Martin 394-0115 after 6pm

CCUG (Greater Lansing Color Computer Users Group) (MC2)

Meets: First Saturday, 1:00 P.M.  
 East Lansing Public Library, 950 Abbott, E.L.  
 Contact: P.O. Box 14114, Lansing, MI 48901  
 Terry Feichtenbinder 371-1594

CHAOS (Capitol Hill Atari Owners Society) (MC2)

Meets: Third Saturday 9:00 AM  
 Foster Community Center, 200 N. Foster, Lansing  
 Contact: PO Box 16132, Lansing, MI 48901  
 Leo Sell (president) 393-7792

CMARC (Central Michigan Amateur Radio Club)

Meets: 1st Friday, 8:00 pm  
 American Red Cross Bldg.  
 1800 E. Grand River, Lansing  
 Contact: Ken Noble W8JYB 372-0994

Comp Klub of Lansing (TI Users Group)

Meets: 2nd Tuesday, 7:00 pm  
 River Front Community Bldg 501 N Cedar St, Lansing  
 Contact: John Hayes 882-7860; Eugene Loyd 394-1494

The Commodore Club (of St. Johns)

Meets: Every Tuesday night, 7-10 pm  
 Contact: David Smalldon 669-5963, evenings

DECUS GLLUG (DEC Users Greater Lansing Local Users Group)

Meets: Approximately every 2 months at a local DEC user  
 Contact: C. M. Watson (secretary) 483-1111 (days)

DRUG (DEC Rainbow Users Group)

Meets: 2nd Saturday, 11:00 am  
 Institute for Family & Child Study  
 Home Management House #2, MSU (next to Berkey)  
 Contact: Jeffrey Weihl 353-3717 (days) 349-6967 (evenings)

Epson Users Group

Contact: Ted Bozarth 332-3710 (after 8 PM)

LACC (Lansing Area Commodore Club)

Meets: First Wednesday, 7:00 PM  
 All Saints Episcopal Church, 800 Abbott, E.L.  
 Contact: PO Box 1065, East Lansing, MI 48823  
 Jae Walker (president) 351-7061

LAMALUG (Lansing Area Mac and Lisa User Group)

Meets: First week of month; different day each month  
 Scofes Restaurant, 2609 S. Cedar, Lansing  
 Contact: Dick McCarrick (at Computer Consignments, 394-4408)  
 Charles Winters 787-5731; Mark Rosenberg 351-0635

M3G (Mid-Michigan Microcomputer Group) (MC2)

Meets: Third Thursday (usually), 7:30 PM  
 East Lansing Public Library, 950 Abbott, E.L.  
 Contact: PO Box 1302, East Lansing, MI 48823  
 Warren Wolfe (president) 337-7672

Executive Meetings: First Thursday, 7:30 PM  
 Beggar's Banquet, 218 Abbott, East Lansing

M3G CMTUG (Central Mich. TRS-80 Users Group) SIG (MC2)

Meets: Third Tuesday, 7:30 PM  
 Foster Community Center, 200 N. Foster, Lansing  
 Contact: Lee Hodges 669-3258

M3G CP/M SIG (MC2)

Meets: Last Thursday, 7:30 PM  
 Foster Community Center, 200 N. Foster, Lansing  
 Contact: Greg Martin 484-5850 or Tim Childs 321-4072

M3G Heath/Zenith SIG (MC2)

Meets: 2nd Wednesday, 7:30 pm  
 All Saints Episcopal Church, 800 Abbott, E.L.  
 Contact: Tom Trana, PO Box 829, East Lansing MI 48823

M3G Osborne SIG (MC2)

Meets: Last Saturday, 1:00 pm  
 (In a member's home; call for directions.)  
 Contact: Larry Tirone 484-3921

MSU MUG (MSU & Capitol Area Macintosh Users Group)

Meets: During MSU school year - not again until Fall  
 Contact: John Sykes 332-6720

U.P.C.O. (Users' Personal Computer Organization--IBM PC group) (MC2)

Meets: 4th Tuesday, 7:30 PM  
 Agricultural Engineering Bldg., MSU  
 Contact: Skip Osterhus 321-3425

Clubs designated (MC2) are members of the Michigan Computer Consortium.

This listing is as accurate as the information we receive.  
 To list an event or update information, contact Joe Werner  
 at 337-7415 (evenings), or on the local BBSs BabbleNet or  
 LSJ Access, or via MCI Mail (JWERNER).

## ABOUT ENERGY

ENERGY (ISSN 0740-2759) is published monthly by the Michigan Computer Consortium, Inc., P.O. Box 1302, East Lansing, Michigan 48823.

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Subscriptions to ENERGY are provided as a benefit of membership in one of the clubs constituting the Consortium. Subscriptions are not otherwise sold. For information about joining one of the clubs in the Consortium, write the club at the address above.

## ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC2) was formed in 1983 to sponsor joint activities involving member computer clubs. Current members are:

AppleLUG (Apple Lansing Users Group)  
CCUG (Greater Lansing Color Computer Users Group)  
CHAOS (Capitol Hill Atari Owners Society)  
M3G (Mid-Michigan Microcomputer Group)  
UPCO (Users' Personal Computer Organization)

## EDITORIAL BOARD

Dennis C. Cullinan....(Editor).....372-6590  
Terry Feichtenbinder....(CCUG).....371-1594  
Mike Aldrich.....(CHAOS).....394-2412  
Joe Werner.....(M3G).....337-7415  
Skip Osterhus.....(UPCO).....321-3425  
Gary Martin.....(AppleLug)....394-0115  
Marvin Goldstein.....(Treasurer)....332-5471  
Alison Hazzard.....(Advertising)....349-7455

## ADVERTISING

Advertising in ENERGY is an economical way to promote your products or services to well over 500 bona-fide computer users in the Lansing area. Four sizes of ads are available, with discounts for multi-issue contracts. Camera-ready ad copy is needed by the 15th of the month preceding publication. Limited graphics artwork is available at an extra charge. For more information, contact our Ad manager, listed above.

## ARTICLE SUBMISSIONS

We encourage your article submissions. Contact your club's Editorial Board representative. We use compressed mode printer copy, with 3.5 inch columns and 8 lines per inch. Deadline for articles is the 15th of the month preceding publication.

## OUR COVER ARTIST

Joe Taylor, whose artwork has graced the covers of ENERGY this year, is a professional artist living and working in Chicago. He works in many forms: oils, sculpture, stained glass, etc. He can be contacted at 121 Buckingham, Chicago IL 60657.



## TABLE OF CONTENTS

Clubs data.....	3
ENERGY Info.....	4
M3G Section.....	5
UPCO Section.....	7
CHAOS Section.....	11
CCUG Section.....	26
APPLE LUG Section.....	19
Person-to-Person Ads.....	23



## FROM OUR AD MANAGER

My name is Alison Hazzard and I have been officially "roped" into being the new ENERGY advertising manager.

Actually, I really like the job. It gives me a chance to go around town and meet all of the members of the Michigan Computer Consortium and find out what is available for them. You would be surprised how much Lansing has to offer to computer freaks like us! Good products, competitive prices, and great selection - not to mention consultants that can help you with any hardware or software problems.

ENERGY offered me \$50,000 to do this job, but I turned it down because they have such a tight budget here. Actually I'm just an independent business person like many of you. My specialty is executive search (for computer people, of course) plus other personnel consulting. (End of MY advertisement)

One reason I became ad manager is because I believe in it. I have found the readership is very knowledgeable and are always purchasing new equipment. Since a quarter-page ad is only \$15, and it is focussed right on the computer community, I think it is a helluva deal for advertisers.

But for advertisers to continue to support our worthwhile magazine, and for the magazine to continue publication, we members must tell advertisers that we see their ads. Better still, buy the products or services and THEN tell them where we saw the ad. You can bet they'll be lifelong supporters after that.

So for you members: support our advertisers. And for my advertisers: we've got the best bargain in town, zero ad CPM market, so please continue your great support!

## THE USER

by Joe Werner

## The HP Vectra

Those who know me know I am a computer junkie. I love to hear about, see, and play with new equipment. And some local friends are my "pushers", helping me feed my habit. So when Cathy Christy from Demco Products called me recently about their new HP computer, I of course had to go take a look.

On September 26, 1985, Hewlett Packard introduced a new personal computer called the Vectra PC. The Vectra is an IBM PC/AT-compatible, which represents a departure of sorts for HP. But as you'd expect from HP, the Vectra offers more than the AT. (Let's face it, this is absolutely necessary if you're going to compete with IBM on its own turf.) Surprisingly, it offers it for less money in many configurations. (I say surprisingly, because in many markets, HP has been said to stand for Higher Priced.)

To start with the specifications, the Vectra uses an 80286 processor running at 8 MHz (instead of the AT's 6 MHz). It has an optional 80287 numeric co-processor which can run at 5.33 MHz (instead of the AT's 4 MHz). Disk -- Excuse me, HP spells it Disc -- storage is available with 360 K byte flexible disc, 1.2 M byte flexible disc, and 20 Megabyte internal hard disc as options. (Choose up to three.) A 0.25 inch backup tape drive is available, as are 3.5 inch flexible disc drives, presumably compatible with the other HP products. Memory is available in 256 K or 640 K bytes, with expansion up to 3.64 M bytes, if your software can support it. The unit comes with a keyboard, and can come with optional HP Touch touch-screen input, or with an HP Mouse.

The Vectra comes with a one-year warranty, instead of the standard 90 days.

Notably, the Vectra claims full bus compatibility with the IBM PC AT, so that almost any board that works on the AT should work on the Vectra. HP's statement is "...it is designed to run all the off-the-shelf software and hardware accessories available for the IBM PC/AT."

HP has "improved on" the AT keyboard. They have kept reasonably close to the AT layout, which is in general a good layout. But the keys feel mushy to my taste, and there is no solid tactile or audible feedback of key depression. HP has added a much-needed cursor-control cluster, which duplicates the layout and function of the cursor-control keys from the AT numeric pad, thus allowing you to use the numeric keypad and the cursor keys without having to toggle the Num Lock key each time. However, the codes generated by the cursor-control cluster are not affected by the shift key. Programs (such as PC-WRITE; see below) which recognize key codes and differentiate between PG-UP and Shifted PG-UP (for example), won't work correctly with the cursor pad; you'll have to use the cursor keys of the numeric pad, as with the AT.

In terms of user interface, HP has again tried to make their system easier to use, by providing the command shell PAM (Personal Application Manager), a menu-driven command interpreter. When you boot the system, PAM comes up. If you want to go to the DOS Command interpreter, PAM will fire up a COMMAND.COM subtask for you. But for a lot of users, PAM is a far more friendly way to go.

The Vectra is priced like crazy, with nearly everything an option. Hence there is no "package" price at present. Dealers will probably put "standard" packages together for ease of marketing. But the price structure makes it appear that the Vectra will compete favorably in price with the IBM PC/AT.

It certainly competes in performance. The Vectra is FAST! I didn't have a lot of time to play with it, but the few informal benchmarks I did suggests of up to 30 percent speed improvement may be reasonable. To cite one example, we tried a public-domain program that plots a map of the world on the screen. The program is written in interpretive BASIC, and we ran it on several machines. Here are the timings: PC/XT with Extended Graphics Adapter (EGA), 18 seconds; AT&T PC 6300, 8 seconds; IBM PC/AT with EGA, just under 8 seconds; HP Vectra, 5 seconds.

In our testing, we found a great deal of compatibility, but ran into a few problems. I was surprised that some of the graphics programs I tried worked correctly. SWEEP worked fine. But the public domain program AREACODE, which gives a telephone area code for a state, or a state for an area code, failed with a "NO CODE" message. I also managed to hang the system (reboot time) with Volkswriter, while trying to edit a file of about seven pages. A one-page file worked fine. (I wouldn't be surprised to learn that both of these failures are caused by the way PAM fires up the DOS command interpreter.)

PC-WRITE, a public-domain word processor, worked fine, although there was a slight problem with cursor control. As mentioned above, the cursor-control pad generates the same signals whether or not the shift key is depressed. PC-WRITE uses PG-UP and PG-DN to scroll the screen (unshifted) or page the screen (shifted). For this and similar functions, the PG-UP and PG-DN keys on the cursor control cluster cause the unshifted function, regardless of whether or not the shift key is depressed. The keys on the numeric pad work compatibly with the AT, and so those are the keys you have to use.

One other point needs to be noted. HP announced the Vectra on September 26. Demco, a local dealer, received their demo unit two days before (that's right, before) the announcement. They received units for inventory stock on the day of announcement. This is significantly different from some other manufacturers. When HP announces a product, it is ready for delivery.

In summary, the HP Vectra is a good, solid product from a good, solid company. It represents a departure for HP, which has now moved into the world of IBM compatibility. And it offers some price and performance advantages over the IBM PC/AT, which is necessary in the IBM-compatible market. If you're looking for an AT compatible, the Vectra deserves careful consideration.

## JOSEPH W. WERNER

Independent Systems Consultant

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P.O. Box 926  
East Lansing, MI 48823

(517) 337-7415

MCI Mail: JWERNER

## WRITING DOCUMENTATION

by Ginny Werner

A while back on one of the bulletin boards someone had a question about the prime numbers sieve program that BYTE uses to benchmark computers. The person asking the question had typed in the program, but wasn't getting the results he expected. As it turns out, the program uses a strange data structure. But it took a lot of searching to find this out. Everything would have been a lot clearer if some comments about the data structure had been included in the code. In other words, the program needed documentation.

One of the most important things to do when you write a program is to document it. Yet so few of us do an adequate job. Documentation is not nearly as much fun as programming. But it is essential if you will want to change the program somewhere later on.

The first piece of documentation you write for the program should be done before you write even one line of code. This is the statement of purpose. You should be able to state in one sentence exactly what the program will do. If necessary, you can write a paragraph with a further explanation.

As you are writing the code you should be putting in comments. You should explain before each section of code what that section does. Go into detail if you are using a complicated data structure or algorithm. Subroutines should have comments stating what they do, what they expect as inputs, what they will return if everything is okay, and what will happen if there is an error. What seems obvious to you today may seem like Old English in two months.

Comments should be used even if you are using an interpretive BASIC. They can be put at the beginning or end of the program for performance reasons. Or you can create a text file that contains the comments by line number that could be merged with the program to create a commented source. (PC-TALK in the IBM PC Freeware library used this technique.)

If you are intending to let someone else use your program you should also write user documentation. This should tell the user the purpose of the program, how to run it, what the options are, and what they can expect as results. It should also explain any error messages they are likely to see. Help files are nice, but they are not a substitute for a piece of paper in the hand.

After you have used the program for a while you will probably notice some things you want to change. Everytime you make a change to the file you should make a comment in the file header stating who made the change, when the change was made, and what the purpose of the change was. It is often helpful to mark the lines changed. This way if the program breaks in two weeks you know where the last changes were.

I know documentation is not the most fun thing in the world. However, if you do it and do it well it can save you a lot of time and frustration in the long run.

Next month: Some Documentation Techniques

## GLICKMAN ASSOCIATES

*Executive Search  
Career Counseling*

### Career Counseling For Professionals

- Resume construction
- Interviewing skills
- Career changing
- Locating the right companies
- Job search planning

349-7007

# UPCO

## Users' Personal Computer Organization

### About UPCO:

UPCO was formed in early 1982 and is a non-profit organization of personal computer users in the Lansing area. Membership is open to anyone with an interest in personal computing. Most members have an IBM computer but there are also members with Tandy, Compaq, DEC, Leading Edge, DataVue, Columbia, and others.

### Meetings:

UPCO meets the 4th tuesday of every month (except in December when Christmas interferes) at 7:30 p.m. in room 116 (auditorium) of the Agricultural Engineering building on the MSU campus in East Lansing. The Ag Eng building is located on the SE corner of Shaw and Farm Lane (across the street from the Planetarium). The structure of each meeting is usually:

7:30 - 7:45 Club announcements  
7:45 - 9:00 Main presentations  
9:00 - 9:15 Break - sign up time  
9:15 - 9:20 Door prize awarded  
9:20 - 9:30 Open question and answer

The times will vary according to the length of the presentations. To be eligible for a door prize you must be a paid member and in attendance.

### Dues:

UPCO dues are \$5.00 per person per 12 months and can be paid at the meetings or can be paid by sending a check made out to: Dick Janson  
8902 Bath  
Lansingburg, MI 48848

### Affiliations:

UPCO is a member of the Michigan Computer Consortium, and of the the IBM Exchange organization.

### Newsletter:

UPCO members receive each month a copy of ENERGY, published by the Michigan Computer Consortium, as a benefit of membership.

### Bulletin board:

UPCO maintains a RBBS for its' members from 6:00 p.m. till 8:00 a.m. (all day weekends) at 517-355-6594. Mesagges may be left/read and software up/downloaded.

### DAM list:

UPCO keeps track of data about members thru the DAM list. When each member signs up, a form is filled out indicating the users' hardware/software combination and this info is compiled and made available to each member from time to time. Only the summation of each category is made available and not the names so as to protect each members' privacy on this matter. Members are encouraged to keep their info as accurate and current as possible. The purpose of this list is for the situation where one member would like to talk with another member about a particular piece of hardware or software. The member should contact the keeper of the DAM list and find out if another member has the hardware or software of interest. The keeper of the DAM list will arrange for the two parties to talk.

### Special Interest Groups (SIGs):

UPCO currently has one SIG formed around the 'C' language. Members interested in this SIG should contact Larry Shields at 517-337-0904 after 6:00 p.m. Other SIGs could be formed around the Tandy 1000 or the IBM PCjr, etc. Anyone interested in forming a new SIG should contact the UPCO president.

### Free software:

UPCO makes available many diskettes free for the copying at the meeting. Each member should bring some pre-formatted blank diskettes to the meeting to do the copying. Blank diskettes will be sold at the meeting by UPCO (\$1.50/black and \$2.50/other colors) for the members' convenience.

### Club software library:

UPCO has a club software library of over 60 diskettes that sell for \$5.00 each to members. Members can fill out an order form at each meeting requesting the particular volume desired and turn this form over to the software librarian. Members are encouraged to contribute their own public domain software and in doing so will be granted a free diskette in return. UPCO does not tollerate PIRATING software by members.

### Officers:

Office	Officer	Home phone
President.....	Skip Osterhus....	517-321-3425
Treasurer.....	Dick Janson.....	517-675-7453
Software librarian.....	Les Mack.....	517-339-8835
Secretary.....	Doug Pfister....	517-332-6069
Keeper of the DAM list....	Jerry Warren....	517-321-7599

# UPCO

UPCO Notes

by Skip Osterhus

## Old business:

September meeting: September 24th, 1985 at 7:30 p.m.  
Place: Room 116 of Ag Engineering  
Attendance: 51  
Door prize: Wordprocessor and spellchecker.  
Winner: Herman Arends  
Speaker: Richard Hess and Jerry Matyczyn  
Steve Melnyk  
Topic: Third party maintenance contracts.  
Paint software versus draw software.  
DOM: Yes  
EXCHANGE: September 1985

## New business:

November meeting: November 26th, 1985 at 7:30 p.m.  
Place: Room 116 of Ag Engineering  
Attendance: ?  
Door prize: Surprise  
Winner: ?  
Speaker: Bruce Papesh and Katy Estrada  
Topic: Using your micro for investments  
(data collection, portfolio mgmt,  
decision making, etc.)  
DOM: Maybe  
EXCHANGE: November 1985 expected

- 1) Please take note that our Disk-of-the-month (DOM) is being previewed in each issue of ENERGY. This will give you advance notice of what is to be at each meeting. As time permits we will also document previous DOM's.
- 2) I will have any new or old issues of EXCHANGE at each meeting so if you are a paid member please feel free to come up and get your single copy of each month.
- 3) The club bulletin board is functioning, but we would like more people to take advantage of it. Please call anytime after 5:00 p.m. until 8:00 a.m. and all day Saturday and Sunday. Remember there are listings of the club mail available and also this is an excellent place to test your modem software, ask questions or download/upload software. The number is 517-355-6594 using 300/1200 baud and 8N1.
- 4) Don't forget to pay your dues if it has expired! You can tell by looking at your mailing label on each copy of ENERGY that is mailed to you or you can ask me at each meeting. At \$5.00 per person per year, I think it is quite a bargain. I would like to thank all our loyal members who continue to purchase our disks (blank, colored, DOM's). Because of your contributions, the club is able to keep the dues low and mail ENERGY to all paid members. Thanks again!
- 5) As always I welcome suggestions from the membership for ideas on future meetings or directions the club should be going in. Your contributions to ENERGY are welcome any time. Don't be shy. Each member has plenty to contribute. You may call me anytime at 517-321-3425 (voice) or leave a message on the club bulletin board.
- 1) UPCO is attempting to form a PCjr SIG. If you are interested please contact Ray Robins at 517-694-1926 (home). The PCjr SIG will meet at 7:00 p.m. sharp on November 26th, 1985 in room 116 of Ag Eng. This will be an informal get together. The purpose will be to discuss the forming of the PCjr SIG. If you are interested or know anybody who might be then show up at this meeting.
- 2) The December 1985 meeting of UPCO will be based on the IBM LAN and will be held at Lansing Community College on December 16th, 1985 in room 135 of Old Central (located on the NW corner of Capitol and Shiawassee).
- 3) My employer has purchased a 60 plus megabyte hard-disk thru Computerland. It is a MAXTOR and is sold by Mountain Hardware. The performance is excellent so far and the software installation (to make vols C: and D:) was the easiest I have encountered. My employer has also purchased thru Computerland a 60 megabyte external tape backup unit also sold by Mountain Hardware. It is very fast (10MB/3 min) and has worked reliably as of this writing. To insure reliable operations Computerland sold us a 1000 watt backup power supply made by Tripp Lite. The power supply is capable of providing between 16 and 30 minutes of power in the event of a failure. To test the unit I unplugged the cord from the wall and of course the AT just kept on running as the backup alarm and light went off to indicate the backup power had taken over. This was very reassuring to watch it actually happen.
- 4) Please note that in previous issues of ENERGY the club bulletin board was listed as 517-655-6594. Do not call that number! It is not the club bulletin board! The real number is 517-355-6594. I am sorry for any problems I may have caused.

# UPCO

## MICRO scope

## DATAVUE 25

Focus on Hardware

--- 12 lb PC w/handle

From "MICRO scope" - reprinted with permission of  
Farm Bureau Insurance Group - Lansing, Michigan

**One Micro to Go, Please!** Micros are getting smaller and lighter. The Atlanta COMDEX show had a half dozen of 'em in the under 20lb weight class. The key for us is to find one that can be used interchangeably with our existing PCs, XTs, and Compaqs. Some used the smaller hard-shell 3 1/2" disks; others lacked a numeric keypad. Most used an LCD screen (a larger version of the digital watch display). You may find the DATAVUE 25 an alternative worth considering. So pull up a chair while I describe it for you.

**Nice Things Come In Small Packages** It is small, taking only 13" x 15" of your desktop. (The PC takes more than twice the space.) It weighs in at about 12lbs, less than half the weight of a Compaq micro.

**But does it get along with the competition?** YES, as well as a Compaq does. And you can't do much better than that! It has a single 5 1/4" floppy drive and its memory can be expanded to 640K, just like IBM's PC. You can use some of the extra memory as an electronic RAM disk. It's easy to reassign the floppy and RAM disks as drives A: or B:.

**The screen is different** It is still 80 characters wide and 25 lines long, and can display graphics in four shades of gray. But because it is an LCD with a glass face, it needs light from over the shoulder, and can reflect light from other areas. To accomodate these restrictions, the screen is made to tilt at four angles, and the contrast on the screen can be adjusted from the keyboard. Although this is no competition for a standard CRT screen, it is acceptable for viewing by a single person (not to be considered discrimination against marriage.)

**The keyboard is different** They re-arranged the keyboard so it would fit over the side of the computer to cover the screen. The function keys are along the top, and the keypad is to the right, but above the QWERTY row of keys. Some of the other keys are in new locations. Also, the keyboard requires a heavier touch. There's no keyboard cable - the keyboard is connected to the computer with an infrared light, which works quite well.

**Not a New Company** The DATAVUE 25 is being marketed by Quadram, our current source for memory expansion boards. We will be able to order them through our local dealer and get service there, too.

**Cost** The basic system comes with 128K memory, and a single 5 1/4" floppy drive. List price is \$2199. You can add a floppy disk (\$450), rechargeable battery good for 30-60 minutes (\$65), extra 512K memory (\$600), a 300/1200 baud modem (\$450), keyboard cable (\$15), and later this year - expansion chassis with hard disk (\$ unknown) and a backlit screen (\$ unknown).

**Demo available** Call Dick Janson in Micro support if you want a demonstration of this machine.

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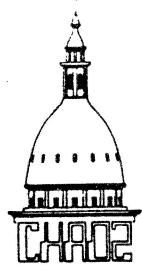
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We have it ---

Drop by and see this trend setter!

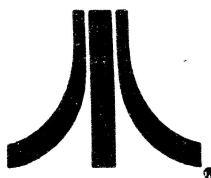


# CHAOS



C H A O S W E L C O M E S Y O U  
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## ATARI



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### CAPITOL HILL ATARI OWNERS' SOCIETY

#### PRESIDENT'S CORNER

by Leo Sell

In this issue, finally, we have a complete listing of the C.H.A.O.S. Program library. As printed in Energy it may make little sense. Here is the secret to having a sensible list. Fold your newsletter back away from the library listing. Then carefully cut out the pages containing the Library list. Once you have cut them out (carefully of course) fold them altogether in half to make a miniture book. They should be in order now and make perfect sense. If you like, put a staple in the middle. I hope you like this method of listing. It will be far easier read, alter and make additions to in the future.

Have you entered the contests yet. The deadline fast approaches. You should submit your program to Lance or Claus by the upcoming, November meeting. The same should be said for any memberships you gather. Get the info to Gary Ferris at this meeting. Get in on both the Programming and Membership contests. We need the growth in our membership and our library. We have tried to provide prizes to make it worth your while. The rest is up to you. By the way, if you are delayed, you may be able to make special arrangements with these people. I know however that nothing will be accepted after December 1st. Whether or not you can submit entries between November 16th and December 1st is up to the discretion of the judges. Remember that we have some nice prizes available: an Atari 1022 printer/plotter, or 1230 direct connect modem or a \$50.00 gift certificate from TNT computing. Other prizes may be donated by Castle Communications. A lot of very talented people are out there within our membership. Share your talents with us. Fame and fortune may be yours...

I hope that readers with a modem are using the C.H.A.O.S. BBS. You can get a real treat by phoning 517-371-1186. John Nagy, our Sysop, has done a tremendous job of altering and improving the Forum program. The BBS is becoming known in the far reaches of Atari land. One of the new improvements is higher access for C.H.A.O.S. members than for non-members. Just another way to encourage people to join C.H.A.O.S. and not take a free ride. Call it today. See what the excitement is all about.

I hear noises about the need for a replacement Newsletter Editor. If you want a newsletter, someone should step forward and volunteer. If you are willing to do a job, I will not know it unless you tell me so. We have to

have volunteers to make the club work. Without your involvement, it will wither and die. Get involved!! Volunteer today!!!

John Lewis (I think) is such a volunteer. He has

expressed a desire to start a Novice (beginners) Special Interest Group. He is even willing to host it initially. The SIG would not be limited to just Basic programming but would include basic use of the computer, beginning programming in languages such as Action or C as well as Basic, and discussion and troubleshooting in general. If you want to get in on this, see me or John.

We are seeing signs that the 520ST software drought may be over. Numerous newsletter and magazine articles have announced lots of new, productive software. The VIP Professional sounds very exciting. It is a Lotus 1-2-3 look alike. I think I have even heard that it will read Lotus data. A lot of power in a \$99.00 program. As software becomes available, more and more magazines are recommending the 520ST as the best buy today. Good Luck Atari.

Speaking of magazines. A recent issue of Analog said that some real illegitimate things are going on in the computer magazine world. I won't go into too much detail, but you may want to read the editorial in the November issue. Talk about seedy. One major magazine offered to do a 520ST devoted magazine, but only if Atari coughed up \$1 1/2 million to do it. Other things indicate that a number of "independent" periodicals may be basing their reviews and coverage on likely advertising income from the reviewed products. Sure doesn't sound like real journalism to me.

Well, on to other things. Until next month--Happy Computing.

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# CHAOS

## Chaos Publication Library

By Richard Evans, pub. librarian.

Have you checked out the publication library lately? Over the summer we acquired a dozen new books (eight were donated by John Baker -- thanks John!), hundreds of Atari user club newsletters from around the world, and the most recent issues of Analog and Antic.

In addition, the library continues to have such Atari classics as De Re Atari, Technical User Notes, Inside Atari Dos, and Mapping the Atari.

Our new books include Compute! magazine's Machine Language for Beginners, which is the best introduction to 6502 Machine/Assembly Language. The book even contains a type-in assembler.

Other new books are Atari Basic by Richard Haskell, The Visicalc Book, Atari Edition, Atari Graphics by Compute! and several anthologies of type-in programs.

Our big project for the summer has been the creation of a data base of useful articles from user club newsletters. The data base currently contains about a thousand entries with topics ranging from "how to make a spike protector for your modem" to programing tips for the ST. Plans are to make the data base available both in print and disk format later this fall.

Materials can be checked out of the publications library during club meetings or by calling me and making arrangements to pick them up (351-2381). You can keep items for one month, but then please return them so others can have a chance. Next month we'll print an updated list of the Library's contents.

### "That's Not My Job"

This is a story about four people named Everybody, Somebody, Anybody and Nobody. There was an important job to be done and Everybody was sure that Somebody would do it. Anybody could have done it, but Nobody did it. Somebody got angry about that, because it was Everybody's job. Everybody thought Anybody could do it, but Nobody realized that Everybody wouldn't do it. It ended up that Everybody blamed somebody and Nobody did what Anybody could have.

Author Unknown  
Contribute to the Club/Newsletter

MUSINGS...  
by Leo Sell

Recently I had a good experience with a local retailer here of the Energy advertisers I believe. After seeing an ad from Home Video Outlet in the paper offering a premium brand of disks for \$9.95, I went to purchase a few. Thinking it wise, I called ahead to be sure there were some in stock. Plenty was the word. Imagine my surprise when I arrived and they were sold out (a local school had phoned in a purchase order). When I protested mildly (unusual for me to protest mildly I know) they found some bulk disks which the saleslady said should be comparable. As far as she knew they had to be either the Janus disks I had come for, or Sentinel disks which sold for \$5.95 more. I agreed to take 20 home and try them. A few days later, I had need for a formatted disk. I reached into the box and threw one into the drive to format it, up and behold it would not be formatted. I tried another, then several more. None would format. Oh great, I thought, I'm a patsy this time. On monday following, I took the disks with me to work, stopping at HVO on the way home. Thinking I may have to fight for my rights, I strode into the store. I had barely taken the disks out of the package when the saleslady said, "I'm so glad you came back. Dave (the owner) said we would have trouble with those disks, and that we should contact you if we could. I didn't know just who bought them..." With that, she further explained that customer good will was important to them and that Dave had instructed her to exchange the junk disks for the more expensive Sentinels. The result was one happy customer. The saleslady told me that they would lose a little money on the deal, but customer satisfaction was important to them. What a treat!!! A retail establishment that is concerned with customer treatment and satisfaction. My hat is off to you Home Video Outlet. Thanks again.

### COMPUTER PROVERBS

Shakespeare:

About computer manuals (Hamlet,II,2)

"Though this be madness, yet there is method in't."

About peripherals (Hamlet, I, 3)

"Costly thy habit as thy purse can buy"

About program bugs (Hamlet, IV, 5)

"When sorrows come, they come not single spies, but in battalions."

Reprinted From COMPUTAH

# Apple Lug

Apple LUG News

November, 1985

## APPLE LUG NEWS

### Apple LUG Officers

*President:* Gary G. Martin  
*Vice-President:* Jeff Howell  
*Treasurer:* Bruce McConnell

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### PROGRAM THIS MONTH

Apple L.U.G. members and other readers of *ENERGY*, it is time again for one of the most spectacular events in the L.U.G. calendar, the ANNUAL AUCTION. Not only is this an opportunity for those who have "out-grown" a piece of hard- or soft- ware to transform it into hard cold cash, but equally attractive is the prospect of obtaining a rare specimen for a fraction of its original value. The Auction will be held November 16th. Registration will begin at 9:00 a.m. on the MSU campus in the auditorium of South Kedzie Hall, just across the garden from where our regular meetings are held. Follow the signs in the building. If you can't find the building, see the map on the next page.

Last years AUCTION was tremendously successful, and we anticipate this year's will be even better. In contrast to years past, we are inviting ALL computer users and dealers to participate as either buyers or sellers in the auction. Consequently, we are not restricting the auction to Apple or Apple compatible products. However, the following rules must be followed in order to place an item on the auction block.

1. ALL SOFTWARE offered must be ORIGINAL COPIES with ORIGINAL DOCUMENTATION. The Apple L.U.G. will not auction backup copies and Xeroxed documentation. The reason for this is obvious.

2. ALL HARDWARE to be sold should work or should be noted as having specific problems. Please do not bring hardware that

does not work, hoping that the person that is going to buy it won't find out until he gets the item home;

3. ALL HARDWARE AND SOFTWARE is sold on a "as is" basis. The Apple L.U.G. accepts no responsibility for the condition of the software and/or hardware. However, we will gladly supply buyers with the address and phone number of the person that brought the software and/or hardware to the auction. It will be up to you to settle any differences that may arise.

In order to keep track of items, buyers, and sellers, the following format has been established for the AUCTION:

1. BUYERS will be required to obtain a number PRIOR to bidding on an item. Therefore, it's suggested that everyone obtain a number as soon as they arrive at the auction. YOU DO NOT HAVE TO BUY ANYTHING IF YOU OBTAIN A NUMBER. You may obtain a number at the auction by registering at the buyers table.

2. SELLERS must register at the "SELLERS TABLE". Registering consists of: Giving identification, including Name, Address and Phone Number; And, telling the person at the table how many items you wish to sell. Each item you sell must receive a number. This number, or sequence of numbers, will be given to you at this table (DO NOT MAKE UP YOUR OWN). After receiving the numbers, it will be your responsibility to place these numbers on your items (sticky back labels will be provided for you).

# Apple Lug

Apple LUG News

November, 1985

The procedures for the AUCTION will be as follows:

1. Each item will be placed on tables (by Sellers) for viewing (by potential Buyers) before the AUCTION starts. The "BUYERS TABLE" and the "SELLERS TABLE" will be open shortly after 9:00 a.m. The actual AUCTION will start around 10:00 to 10:30 depending upon the number of items, buyers, and sellers.
2. Once the items have been viewed by prospective bidders, the tables and their contents will be removed to the front stage of the auditorium and the auctioneer will begin presenting the items in random sequence.
3. As each item is sold, it will be handed directly to the buyer. If the seller of the item is not satisfied with the final high bid, he/she may "no sale" the item at this time, stating if he/she chooses what minimum bid would be required. Sellers pay a 10% commision on all items offered; 10% of the highest bid if the item is "no-saled". The number of the item and the number of the buyer will be noted. This allows us to keep track of all purchases. At this time the buyer is responsible for the item and will be charged accordingly.
4. Before a buyer leaves the AUCTION, he must pay for the items he purchased. This will be done at the "BUYERS TABLE". The procedure is simple. The buyer will show his number to the people behind the table and they will sort through all sales sheets noting purchases made under his number. All purchases will be totaled and the buyer will be required to make payment at that time.
5. After the AUCTION is OVER, the SELLERS should claim all items not sold. It will be their responsibility to look after these items. The SELLERS can also settle up at the "SELLERS TABLE". The people working at the table will sort through all the items purchased and registered to the seller. After this is done, a total will be made and the

club will take it's share and make payment to the SELLER. The club receives a 10% commision on all sold and "no-sale" items. Items which do not receive bids are not liable for commision charges.

If we have your cooperation, we should have a sale that runs smoothly. WE NEED PEOPLE TO HELP WITH THIS SALE. If you wish to help out, please come to the AUCTION and ask to help. Your support will be greatly appreciated. This AUCTION is a service that is not offered, to my knowledge, by any other club. Please help us to help you.

Thank you... Apple L.U.G.

## RE-INKING PRINTER RIBBONS

By John R. Morton

Printer ribbons usually run out of ink before they are worn out. They can be re-inked rather easily without any special equipment. The following instructions are of a general nature :

1. Being careful not to break the guide pins, pry off the top of the printer case with a sharp-pointed, thin knife.
2. Ink of the proper quality can be obtained from Dale Marshall, 349-4671.
3. Distribute the ink on the z-folded ribbon in three thin lines.
4. Experience will teach you how much ink to use.
5. Over-inking can be corrected by absorption on a paper towel.
6. Replace the cover.
7. Rotate the ribbon completely by turning the small knob every two days until four separate rotations have been made. The diagonal splice is a convenient reference point.
8. If you should spill the ribbon, straighten it out, replace the cover and rewind it.

# Apple LUG

Apple LUG News

November, 1985

## APPLEWORKS vs. GRAPPLER

By Gary G. Martin

Recently there have been several inquiries in regards to being able to print out AppleWorks files for persons that have a Grappler printer card. From a recent letter in A+ (9-85) Linda Higgs from Orange Micro gave these following tips:

If you are using AppleWorks 1.1 then see your Apple Dealer for a free reconfiguration utility disk which should solve the problem.

If you have version 1.2 then on the printer interface menu change the setup from CTRL I 80N to CTRL I ON. Their phone number is 714-779-2772.

I also spoke with a Apple Rep. at the recent Computerfest at M.S.U. in regards to this problem and he gave the suggestion to use CTRL I 255N. One of these tips should work for you.

## DISKETTE SPECIAL

For the month of November, Computer Consignments has offered a special price on SSDD *PINNACLE SERIES* diskettes by Wabash. The disks are just \$1.00 apiece in any quantity. This offer is made to all current members of Apple L.U.G. When you visit Dick McCarrick at Computer Consignments, just mention that you are an Apple L.U.G. member. His store is located at: 2820 South Cedar, Lansing, near Greenlawn. The phone number is 394-4408.

## VIEWTRON FOR MODEMS

Viewtron, a new on-line data base system has started for-pay-service in this area. The company has made a number of "starter Kits" available to the Apple L.U.G. These Kits allow those of us with modems to explore the new system free of charge with free on-line time!

Don't miss out on this: get your starter Kit from Viewtron at the Apple L.U.G Micro Action on November 16, 1985.

## EDUCATION S.I.G.

Chairperson: Judy Haught

The Education S.I.G. will meet on the 2nd Saturday of the month. They will meet at 9:30 a.m. at the following location:

Computer CoOp  
5127 - C Aurelius Rd.  
Lansing, MI 48910  
(Corner of Aurelius and Jolly)  
Ph: 862-3041

## L.U.G. BOARD MEETING

The L.U.G. Board meeting for December is on the 6th at 7:00 p.m. The location is the Foster Community Center on Foster Street near Michigan Avenue, in Lansing.

## WORD PROCESSING TUTORIAL

In January we will be offering a tutorial on *word processing*. In the next issue we will have more information about the tutorial, but the way it is tentatively planned, we will be using three different programs. The Bank Street Writer, a very easy to use, menus driven program; Appleworks, also easy to use, but more powerful and integrated with a data base manager and a spreadsheet. Altogether, a very powerful program. Lastly, we will take a good look at AppleWriter //. This is by far the most powerful of the three word processors that we will be looking at. It is also the most difficult of the three to master. We hope that this introduction will stimulate your interest in these programs. We would like to solicit indications of interest, both in attending the tutorial and in assisting in the presentation. Please let one of the LUG Officers know if you are interested.

# Apple LUG

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Apple LUG News

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IAC Disk #51  
Image-Works

-This is LUG-  
Disk #185-

This month's disk is a series of menu-driven utilities for use with the Apple ImageWriter printer. The disk was assembled by E.D. Thompson of the Denver Apple Pi. Several of the programs are involved in the creation and downloading of custom fonts, to provide an alternate to the built-in fonts of the ImageWriter.

The disk contains the following programs:

Printer Setup - easily sets your ImageWriter to the desired line spacing, typeface and margins.

Select Font - chooses a custom font for use in your printer.

Graphics Toolkit - this program, from Apple Computer, allows hi-res graphics images to be dumped to a printer.

Disk Label Maker - as the name suggests, it creates labels for your disks.

Font Editor - this program, from E.D. Thompson modified from G. Bredon and D. Leighton, allows you to load, edit and save fonts to the disk. It is easy to use and well documented.

Demonstrate Fonts - shows you how the font will appear on the printer.

Text Screen Dump - does just that, to your printer.

Reset Printer - puts your ImageWriter back to where it was in the beginning.

Also included on the disk are a number of different fonts which can be downloaded to your printer, or used as the basis for the Font Editor.

Because the Image-Works programs did not fill an entire disk, for fun I made this disk a hybrid between DOS 3.3 and ProDOS. When you boot up, you are in ProDOS, but can go to the DOS 3.3 portion from the startup menu. The ProDOS part of the disk contains Paul Lutus's FreeWriter, along with instructions on how to print out files created with this program.

# Apple Lug

Apple LUG News

## A "Phreak" Incident by Allen Knapp

(Reprinted from WAP 8-85)

On January 5, 1985, an individual identifying himself as "Phineas Phreak" illegally bypassed the normal telephone security safeguards of Washington Networks, a computerized bulletin board service located near Vienna, Virginia, and erased a substantial portion of a 5-million byte random-access disk storage file.

Washington Networks offers dial-up telephone access for the purpose of exchanging information, data, and computer programs and has been in operation since the spring of 1981. Currently, it operates on a 512K Apple Macintosh, but at the time of the incident it was operating on a 1978-vintage Apple II with a Corona Starfire disk drive. Supported computers have included the Apple II line, the Macintosh, and IBM-PC's at one time or another.

The disk which was "infiltrated" contained both programs and data files. Also, before erasing the data files, he extracted one or more files which included a confidential file listing the normal users' passwords and identifying information. The fact that this file was no longer in the possession of Washington Networks, compromised the security of the system. This was not the first time such an incident occurred here, so I experienced a great outrage of anger and was extremely interested in seeing to it that the culprit was apprehended and appropriately punished. The incident was immediately reported to both the Virginia State Police as well as the Chesapeake & Potomac Telephone Company.

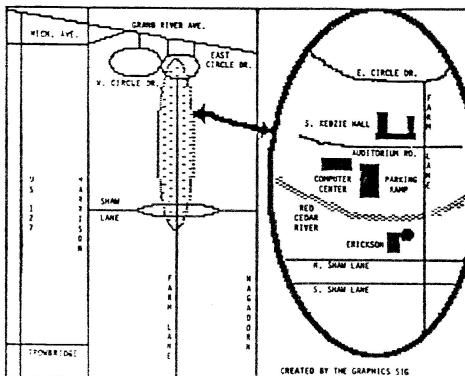
Not realizing that the password file was no longer of any value, Phineas Phreak offered to return this file to me, in exchange for certain demands. These demands included private access to a portion of the disk-based file space, so that he and "a few of his friends" could exchange data and other files. When asked if this would include copyrighted material, the reply was "Yes.". An exchange of such material is highly questionable, if not illegal, and no agreement was made. In an effort to come to some sort of arrangement, he made many phone calls, both to me personally and to the computer.

The C. & P. Telephone Company's "Annoying Call Bureau" attempted to trace the source of the calls to their source in order to identify the caller. Their efforts were complicated by the fact that the calls involved two lines at my end and two lines at the other end, coming from two different central offices. In addition, one of those two central offices involved was converted from "crossbar" to the new "ESS" switching in the middle of the tracing process. Finally, with some persistent effort on their part, they were able to identify

the origin of most of the calls as coming from a particular subscriber located in nearby Maryland. That, along with other evidence, led the Virginia State Police to pay a visit to the subscriber's home with a request to talk to a particular individual residing there. The suspect being sought turned out to be a juvenile so the permission of the parents was needed and granted in order for the talk to take place.

After this interview, it was the opinion of the Virginia Commonwealth's Attorney's office that there was enough evidence to warrant the appropriate legal action, so a charge of "Computer Trespass" was filed and a subpoena was issued to the suspect. On July 8, 1985, the case was heard in Fairfax County Juvenile and Domestic Relations Court and the defendant pleaded "not innocent". He was sentenced to one year of probation and was ordered to pay \$300.00 restitution out of his own pocket.

This is the first case of "Computer Trespass" to be filed in the Commonwealth of Virginia, and perhaps one of the first few of such cases to be successful in the country. This is of interest to all personal computer users, but particularly to those who use and operate such "bulletin boards". It is important that if these typically free (or low-cost) services are to remain in operation, that they be afforded protection from these "hackers" who are out to destroy other people's work. The Commonwealth of Virginia and the C. & P. Telephone Company have both demonstrated a willingness on their part to provide that protection. Many bright, young individuals might think that it's "fun" or challenging to engage in such activities, but it is highly illegal in many states now and it is not impossible to apprehend and prosecute, as is clearly demonstrated by this case.



## PERSON TO PERSON

### JOB VACANCY

The Library of Michigan is seeking a data processing technician to operate and maintain its new IBM mainframe computer system. Salary range is \$11.20 to \$15.73 per hour. For full information on job requirements contact Ms. Robin VanAlstine, Personnel Officer, Library of Michigan, Box 30007, 735 E. Michigan Avenue, Lansing MI 48909, or call 373-1593, ext. 231. Completed applications and resumes are due no later than 15 November, 1985. Please mention ENERGY MAGAZINE when you inquire.

FOR SALE: Radio Shack Color Computer System. 64K grey case, Micronix keyboard, RS disk drive w/controller. Also includes RS Modem I, RS-232 'Y' cable, lower case hardware and large catalog of quality software. \$350.00 complete. CALL 371-1594.

# Apple Lug

Apple LUG News

## APPLE L.U.G. WELCOMES YOU!

### "WHO"

**Apple L.U.G.** (*Lansing Users Group*) is an organization of Apple users in the mid-Michigan area. It was organized in early 1981 to provide a forum for the exchange of information and a means of helping new users to better understand and use their equipment. **Apple L.U.G.** extends a cordial welcome to anyone interested in learning more about Apple microcomputers software, hardware, etc.

### "WHAT"

Our meetings are informal and consist of thirty minutes of announcements, comments, news, questions and answers, etc. This is followed by a program lasting about an hour. Program topics include demonstrations and reviews of hardware or software followed by questions and answers. Visitors are always welcome.

### "WHEN"

**Apple L.U.G.** meetings are held at 9:30 a.m. on the third Saturday of each month.

### "WHERE"

**Apple L.U.G.** usually meets in Room 102, South Kedzie Hall, Michigan State University, East Lansing. It is located at the northwest corner of the intersection of Farm Lane and Auditorium Road.

### "WHAT ELSE"

1. **Disk Library** - **Apple L.U.G.** has a library of over 185 disks containing well over 2,000 public domain software programs, which are offered for sale to members at reduced rates. Disks are purchased from the International Apple Core, other Apple user groups and other

organizations. The Disk Library contains a variety of useful programs for computer hobbyists, for students, for business and recreational applications.

2. **Newsletter** - The **Apple L.U.G. News** is no longer published independently, but has been incorporated into **ENERGY** magazine, which appears monthly, and contains news from the five member user groups which make up the Michigan Computer Consortium. The aim is to provide **Apple L.U.G.** members with the best possible guide to *all* computer related activities within the local area, in addition to monthly program announcements.
3. **Tutorials** - Experienced Apple users within the club conduct tutorials on topics of special interest to the membership. Members pay reduced rates.
4. **Special Interest Groups (SIG)** - Members with specialized problems or interests are encouraged to join others in SIG's (*e.g.* Communications, Education, Graphics) which meet independently of the monthly meeting.

### "HOW MUCH"

Membership dues are \$12 for the calendar year or \$1 per month prorated. Make checks payable to **Apple L.U.G.** and mail to:

Apple L.U.G.  
P. O. Box 27144  
Lansing MI 48909



# Apple LUG

## Apple LUG News

### HOOKING UP YOUR IMAGEWRITER TO A PC

To some it may seem like heresy; for me it was necessity. The challenge: how to hook an Apple Imagewriter printer up to a Tandy 1200 (an IBM XT clone). My letter quality printer was at the shop for repairs and would be out for a month or more. That left only the Imagewriter to service my Apple II+ and Tandy 1200.

The computer salesman at the local shops said it couldn't be done. I knew it could be because several new editions of software for PCs included Imagewriter drivers (Dr. Halo II and Fontrix 1.5). While I don't have either of these new programs and thus have not checked out whether the PC can use the full graphics capabilities of the Imagewriter, I am successfully outputting text files (with bold and underlined text) using Microsoft Word.

Listed below are the steps necessary to accomplish the switch. Please note that one DIP switch does have to be changed, so you can't easily switch back and forth between the Apple and PC merely by plugging and unplugging cables.

1. Purchase a f-f gender changer (RS232). Since the serial ports on PC cards are male as is the Imagewriter cord, the gender changer is necessary. Fulton's Radio and Electronic Supply on S. Pennsylvania in Lansing carries them for \$22 (\$6 less than computer catalog rates). However, they also carry 4' extension cords with two female RS 232 ends for only \$15 (a best buy).

2. Connect the gender changer to the Imagewriter cord and the PC serial port.

3. Check to be sure the serial port on the PC is set for DCE communications since the Imagewriter is set for DTE. If the PC is set for modem communications for example, it will need to be changed (usually involves moving DIP switches or jumpers -- see your serial card manual).

4. Then, using MODE in DOS, set the proper parity, baud rate, etc., for the Imagewriter. The proper command is [MODE COM1:96,N,8,2,p] if you are using the first serial port on a PC (COM2: for the second port, etc.). This command should be installed as an AUTOEXEC.BAT file if you want to conveniently use the Imagewriter for some time.

5. Next change the DIP switch SW 2-3 to the closed position (normally it is open). The DIP switch is on the right side of the printer and is accessed from the top. If you don't make this change, the PC will only be able to successfully transmit about 1K of text (about 40 lines). Page 39 of the Imagewriter manual explains how this Xon/Xoff switch works. Once the change is made, the Apple will print about 40 lines unless you change the DIP switch back.

6. Last, your applications programs on the PC need to have their printer routines set to transmit for the Imagewriter (if they support it) or for TTY (dot matrix or teletype-like configurations). Microsoft Word works fine on the Imagewriter set to TTY. You are able to get bold, underline and strikethrough. All other formatting commands such as paragraph indent, spacing, margins, etc. appear to work per the software specifications.

### Request for Assistance

I hope that this series of steps is helpful to someone else facing this same situation. Perhaps a reader can be of assistance to me. I'd like to talk to anyone with experience in direct cable communication (not modem) between an Apple II+ and a PC. Please contact the author with the procedure, cabling and software necessary to accomplish data and text file transfers.

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## PRESIDENT'S NOTES

By Terry Feichtenbinder  
CCUG President

The featured speaker at our October 5 meeting was Mr. Ark Hampton, Executive Director of the Michigan Computer Education Foundation. Mr. Hampton told us why the Foundation was organized and answered questions related to future plans and possible involvement of computer users' groups.

The Michigan Computer Education Foundation is a directorship corporation (non-profit) founded in response to Greater Lansing area parents' concern that their children receive the best education available in computer-related fields. At this time, the Foundation has four volunteer board members. None of the members are full-time school district employees or computer professionals. The current project in-process is to raffle a 1986 Camaro, with proceeds marked for computer hardware purchase to be used in the Laingsburg High School.

We discussed several areas where users' groups could aid the foundation's efforts. The schools need hardware, software, instructor support and advice on purchase, maintenance and management. Users' groups have large public domain software libraries as well as the individuals' ability to write programs and offer advice. Mr. Hampton also mentioned that the Foundation would like users' groups to 'adopt' a school or a school system to provide aid from initial planning down to classroom implementation.

The issue of aid by the Greater Lansing Color Computer Users Group to the Michigan Computer Education Foundation is scheduled to be discussed at our November 2 meeting.

Our next meetings are November 2 and December 7 at 1:00 PM in the East Lansing Public Library. Guests are always welcome.

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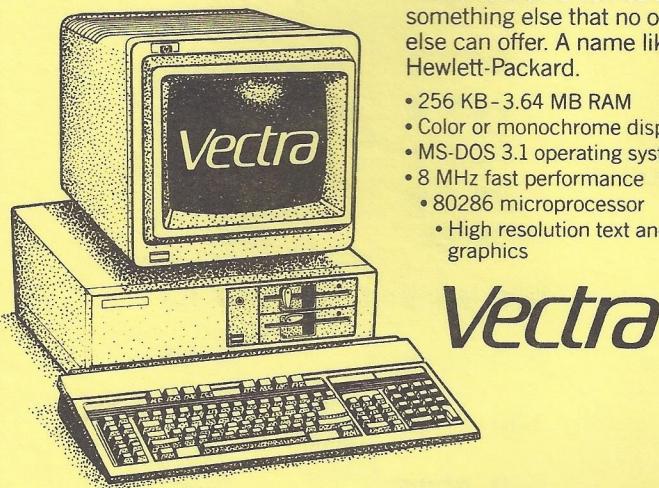
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